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"Rural Development Impacts of Growing Biofuels Industry"

Good morning. Thank you for that very generous introduction. It is a distinct pleasure to be here.

Let me say that as a lifelong farmer from Marcus, Iowa, I get a smile on my face when the folks from CARD start talking about $4 corn. Give me $4 corn and I might just climb back on the tractor tomorrow.

But seriously, renewable energy is probably the biggest new opportunity for investment, growth, and wealth creation in rural America in our lifetimes. Ethanol and biodiesel are building out as fast as folks can pour concrete. Cellulosic ethanol is just over the horizon. Wind power is becoming competitive and solar gets closer every year.

The good news is, this is real. The markets are driving it. So is the Administration. A comprehensive energy strategy -- including renewables -- has in fact been one of the President's core priorities since 2001. Just

last month, in St. Louis, the President led three Cabinet level officials – Secretary Johanns, Sam Bodman from DOE, and Administrator Steve Johnson from EPA – in reaffirming this commitment.

That is the first time any Administration has brought the President and three Cabinet officials together to support renewable energy. The commitment does make a difference. When you look at the production figures -- with ethanol and biodiesel running off the charts -- we've made more progress on renewable energy in the last 6 years than in the previous 30. That's no accident.

One of the great untold stories about renewable energy, by the way, is that the nation's leading wind energy state isn't California – it's TEXAS. That runs back to renewable energy initiatives implemented by then-Governor Bush back in the 1990's. Talk is cheap, but this President "gets it," and rural America is reaping the benefits as we speak.

So it's an exciting time to be involved with agriculture, renewable energy, and rural development. And it's great to be with you today to discuss USDA Rural Development's role in turning the opportunity into reality.

[PAUSE]

Let me establish some context. At USDA Rural Development we are essentially an investment bank for rural America. Since 2001, we've invested over $76 billion in rural infrastructure, housing, community facilities, and businesses. We've created or saved over 1.5 million jobs.

We've worked hard -- and President Bush, Secretary Veneman, and now Secretary Johanns all deserve credit -- to broaden the policy focus from farm to rural policy. This is something that observers have been urging for years. This administration has followed through.

We've established new priorities like renewable energy, critical access hospitals, increasing homeownership, and rural broadband; all critical to a thriving and dynamic rural economy.

We're working hard to simplify and streamline program delivery. We're moving functions online and trying to become faster, more efficient, more transparent, more accountable, and more responsive. We have a full plate.

But as we make the turn into 2007 and the new Farm Bill – looking across the entire spectrum of rural policy issues – two things stand out:

- **First, technology,**
- **And second, renewable energy.**

These things are transformative in their implications, and they are linked. I truly believe that we are entering a new era of enormous opportunity for rural America …

… Provided that we are willing to challenge some old assumptions … (a surprising statement coming from me) embrace change … and develop ways to apply the power of technology, especially distributed computing and broadband, to the goals of investment and wealth creation in rural America.

That frankly is easier said than done. This isn't a simple story. For one thing, as Dermot, John, and Bruce have already pointed out this morning, the ripple effects of the biofuels buildout will touch everything. That is the nature of markets. They adjust. Producers in one niche or another will face differential impacts. They too will have to adjust. It won't always be easy.

CARD is in the forefront nationally of modeling some of these effects. No one does it better. USDA is a sponsor of some of this research. We in fact have an even larger modeling project underway with CARD right now trying to assess the longer-term dynamic effects of biofuels on the national economy as well as agricultural economies worldwide.

I am an avid consumer of CARD's work in this field, and I look forward to more of that analysis as it becomes available.

But in the long run, there is no question that a reduction in America's dependence on oil imports is vitally important. There is also no question that the potential impacts on rural America of biofuels -- and more broadly, renewable energy in general -- is overwhelmingly positive.

Start with the sheer scale. This year, for example, USDA is projecting the total value of farm production in the United States at $273 billion. At the same time, before this year is out, Americans will have paid over $300 billion for imported oil and oil products.

That's worth repeating. Americans will pay more this year for oil imports than the total value of every bushel of corn … gallon of milk …

bale of cotton … cow, hog, or chicken … grape and tomato grown this year in the United States.

That means biofuels are not just another nice, new, value-added product. They're not just another arrow in the quiver. Biofuels are in fact a new market potentially bigger than all of American agriculture today.

Another statistic: The United States currently imports about 5 billion barrels of oil and oil products a year. If we can displace just 20% -- about one billion barrels – with biofuels, that's a new market bigger than today's net farm income.

We are starting to respond to the opportunity. Ethanol today is 3% of U.S. gasoline usage -- but since 2000 it has supplied 30% of the increased demand. U.S. ethanol production has increased from 1.6 billion gallons in 2000 to 5 billion today and this year will absorb about 20% of the harvest.

That's the proverbial tip of the iceberg. The Billion Ton Study issued last year by USDA and the Department of Energy estimated that with cellulosic production, ethanol has the potential to displace 30% of U.S.

gasoline usage by 2030—In my view it is likely this will happen significantly sooner.

Biodiesel production has soared from 500,000 gallons in 1999 to 25 million gallons in 2004 to 91 million gallons in calendar year 2005 to a projected 254 million gallons in calendar year 2006.

All of this adds up to what the academics here might term a "non-trivial" result. It translates into higher commodity prices, new infrastructure, jobs, new tax base and business opportunities on a very large scale.

That said, however, one critical question remains. <u>How much of this benefit will actually flow to rural America</u>? This is an important question. Let me give you an example.

I was in Indiana last week at a rural summit conference. Indiana got a late start in the ethanol boom. That has changed in a hurry – the new Governor, Mitch Daniels, and Lieutenant Governor Becky Skillman have made renewable energy a major priority. This has paid off. Starting almost at zero, Indiana now has 17 ethanol plants under construction or on the drawing board.

<u>But only ONE of those is producer owned</u>.

Frankly, over at the Department of Energy, that's not a particular concern. The plants will be built one way or another. The ethanol will be produced. Farmers will get higher prices for corn and the nation will be a step closer to energy independence. These are all good things, and they are independent of ownership.

But from a rural development standpoint, investment and ownership makes a very big difference indeed. This is the classic value-added question. How can individual producers, small investors, and rural cooperatives capture value when big companies start moving in?

Too often this question has been misunderstood as a matter of money. I sincerely believe that it is <u>not</u>. Rural America in fact is awash in potential investment capital. The Farm Balance Sheet – one of USDA's innumerable sets of statistics – shows $1.9 TRILLION in farm assets and net farm equity of $1.7 TRILLION.

Even in Washington, D.C., that's a lot of money. It's roughly 1,000 times larger than our annual program budget at USDA Rural Development.

That shows you who is the donkey and who is the tail – and I think it puts the strategy of standing in line waiting for a federal grant into proper perspective.

The real key to capturing value, I believe, is information – and specifically, the access to information made possible by distributed computing and broadband. This is where information technology and biofuels come together.

Two years ago, for example, we commissioned a study by Informa Economics entitled *The Role of Information Availability and Information Technology in the Ethanol Industry*. The results were revealing.

The ethanol industry has historically been characterized by a high degree of producer ownership. That reflects its origins as a bootstraps operation by Midwestern corn farmers looking for new markets. There are large companies involved as well, but it is a field where smaller enterprises have been able to compete quite effectively.

I decided to look at that. In particular, we were concerned with whether consolidation was inevitable or whether smaller enterprises could hold their own.

It turns out that information technology is decisive in permitting the evolution of what we call a "franchise" model.

- **Thanks to information technology, smaller enterprises can rely on remote networks for management, technical support, process controls, and maintenance.**

- **They can arbitrage upstream and downstream markets.**

- **They can achieve operating efficiencies that used to require much larger companies.**

- **Economies of scale can be realized at significantly lower size thresholds.**

For all these reasons, information technology opens the door to farmers as well as other rural investors – IF they can be encouraged to get off the

sidelines and into the game. The barrier isn't a money gap. It's a knowledge gap. Distributed computing gives us a very powerful tool to close that gap.

What is true for ethanol is very likely true for many other emerging opportunities in rural America. We're studying that now:

- **First, we're looking at business and investment models to enhance the ability of rural landowners and rural investment groups to participate. This means reducing transaction costs and facilitating the aggregation of local capital so that smaller enterprises can compete in financial markets. The money is there if we can figure out how to structure the deal.**

- **Secondly, we're starting to look at infrastructure issues: pipelines for ethanol, railroad capacity, the requirements for gathering, storing, and moving biomass for cellulosic ethanol, and the availability of new fuels like biodiesel and E85 at the pump.**

  It's important to note that many of the opportunities associated with rising new industries aren't high tech and may be quite indirect. It's an old observation that most of the people who got rich during the California Gold Rush weren't miners – they were the hardware

stores and outfitters, the folks like Levi Strauss, who supplied the miners.

The ethanol and biodiesel boom is no different. It creates opportunities across the board, if we can identify them and steer rural entrepreneurs in the right direction.

- **Third, we're looking at the challenges of integrating distributed production into legacy systems. Wind and solar are good examples. This involves utility pricing structures and regulatory barriers.**

- **And finally we recognize that there's a lot of work to do at the State and local levels where issues involving codes and standards, rights-of-way, worker education, and retraining will be decided.**

This is a work in progress. We don't have all the answers. We don't even have all the right questions yet. But we think these issues are a good place to begin.

The bottom line is this. At USDA Rural Development today, we are as much in the information business as in the loan and grant business.

Yes, our programs play a role. Since 2001, we have invested over $480 million in more than 1,000 renewable energy and energy efficiency projects. We have helped turn some dirt.

But given the scale of the opportunity before us -- the reinvention of America's energy economy and the buildout of whole new industries -- private investment is going to do most of the job.

If we are serious about capturing value for rural America, that is the arena in which we need to play. That is the next step.

Rural America clearly has the latent financial assets to play a significant investment and ownership role. Distributed computing gives us a new set of tools. If we can find a way to link those assets, the future is bright indeed.

Thank you.